```
# Sorting Methods

arr = [170, 45, 75, 90, 802, 24, 2, 66]

# -------- Bubble Sort --------
a = arr[:]
for i in range(len(a)):
    for j in range(len(a) - 1):
        if a[j] > a[j + 1]:
            a[j], a[j + 1] = a[j + 1], a[j]
print("Bubble sort:", a)

# -------- Selection Sort --------
a = arr[:]
for i in range(len(a)):
    min_i = i
    for j in range(i + 1, len(a)):
        if a[j] < a[min_i]:
            min_i = j
    a[i], a[min_i] = a[min_i], a[i]
print("Selection sort:", a)

# -------- Insertion Sort --------
a = arr[:]
for i in range(1, len(a)):
    key = a[i]
    j = i - 1
    while j >= 0 and key < a[j]:
        a[j + 1] = a[j]
        j -= 1
    a[j + 1] = key
print("Insertion sort:", a)

# -------- Radix Sort --------
a = arr[:]
max_num = max(a)
exp = 1

while max_num // exp > 0:
    bucket = [[], [], [], [], [], [], [], [], [], []]
    for num in a:
        index = (num // exp) % 10
        bucket[index].append(num)
    a = []
    for b in bucket:
        a.extend(b)
    exp *= 10
```

```
print("Radix sort:", a)
```

Output:

```
Bubble sort: [2, 24, 45, 66, 75, 90, 170, 802]
Selection sort: [2, 24, 45, 66, 75, 90, 170, 802]
Insertion sort: [2, 24, 45, 66, 75, 90, 170, 802]
Radix sort: [2, 24, 45, 66, 75, 90, 170, 802]
```